

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS : Keefe et al.  
SERIAL NUMBER : 10/729,581 EXAMINER : Jeffrey Norman Fredman  
FILING DATE : December 3, 2003 ART UNIT : 1637  
FOR : METHOD FOR IN VITRO SELECTION OF 2'-SUBSTITUTED  
NUCLEIC ACIDS

**Mail Stop Amendment**  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**TRANSMITTAL LETTER**

Transmitted herewith for filing in the present application are the following documents:

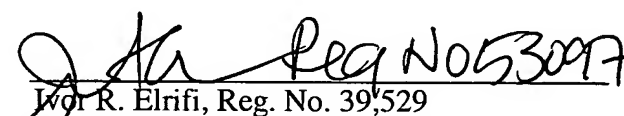
1. Supplemental Information Disclosure Statement (2 pages), in duplicate;
2. Modified Form 1449/PTO (4 pages), in duplicate;
3. Copies of Cited References: B10-19; C55-C108; and
4. Return Postcard.

If the enclosed papers are considered incomplete, the Mail Room and/or the Application Branch is respectfully requested to contact the undersigned at (617) 542-6000, Boston, Massachusetts.

The Commissioner is authorized to charge any fees that may be due, or to credit any overpayment, to the undersigned's account, Deposit Account No. 50-0311 Ref. No. 23239-544.

A duplicate copy of this transmittal letter is enclosed herewith.

Respectfully submitted,

  
Ivor R. Elrifi, Reg. No. 39,529  
Jennifer A. Karnakis, Reg. No. 53,097  
Attorneys for Applicants  
c/o MINTZ, LEVIN  
Address all written correspondence to  
**Customer no.: 30623**  
Tel: (617) 542-6000  
Fax: (617) 542-2241

Date: March 29, 2006



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

APPLICANTS: Keefe et al.  
SERIAL NUMBER: 10/729,581 EXAMINER: Jeffrey Norman Fredmen  
FILING DATE: December 3, 2003 ART UNIT: 1645

FOR: **METHOD FOR IN VITRO SELECTION OF 2'-SUBSTITUTED  
NUCLEIC ACIDS**

**Mail Stop Amendment**  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT**

Pursuant to the duty of disclosure under 37 C.F.R. §§1.56, 1.97 and 1.98, Applicants hereby make of record the documents listed on the attached modified Form PTO-1449, as well as copies of the listed documents.

This Supplemental Information Disclosure Statement is being filed before the mailing date of a first Office Action based on the merits in the above-identified case. Accordingly, no fee or certification is believed required. By the waiver of 37 CFR 1.98(a)(2)(i) copies of the U.S. Patent references A30-A54 are not submitted.

It is respectfully requested that the Examiner consider completely the cited information, along with any other information, in reaching a determination concerning the patentability of the present claims, and sign the enclosed form PTO-1449 to evidence that the cited information has been fully considered by the Patent and Trademark Office during the examination of this application.

By submitting this Supplemental Information Disclosure Statement, the Applicants make no representation that: (1) a search has been performed, of the extent of any search performed, or that more relevant information does not exist; (2) the information cited in the Statement is, or is considered to be, material to patentability as defined in 37 C.F.R. §1.56(b); and (3) the information cited in the Statement is, or is considered to be, in fact, prior art as defined by 35 U.S.C. §102.

USSN 10/729,581  
Keefe, et al.



Notwithstanding any statements by the Applicants, the Examiner is urged to form his/her own conclusion regarding the relevance of the cited information. An early and favorable action is hereby requested.

Please charge any fees that may be due, or credit any overpayment of same, to Deposit Account No. 50-0311, Reference No. 23239-544.

Respectfully submitted,

Ivor Elrifi, Reg. No. 39,529  
Jennifer A. Kamakis, Reg. No. 53,097  
Attorneys for Applicants  
c/o MINTZ, LEVIN  
One Financial Center  
Boston, Massachusetts 02111  
Tel: (617) 542-6000  
Fax: (617) 542-2241  
Customer No. 30623

**Date of Deposit: March 29, 2006**

Express Mail No.: EV 461507463 US  
Date of Deposit: March 29, 2006



Page 1 of 4  
Attorney Docket No.: 23239-544

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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)	<b>Application Number</b>	10/729,581
	<b>Filing Date</b>	December 3, 2003
	<b>First Named Inventor</b>	Keefe et al.
	<b>Group Art Unit</b>	1645
	<b>Examiner Name</b>	Jeffrey Norman Fredman
	<b>Attorney Docket Number</b>	23239-544

U.S. PATENT DOCUMENTS							
Exam Initials	Cite No.	U.S. Patent Document No.	Issue Date	Name of Patentee(s) or Applicant(s)	Class	Sub Class	Filing Date If Appropriate
	*A30	4,683,195	07/28/87	Mullis			
	*A31	4,711,955	12/08/87	Ward et al.			
	*A32	4,828,979	05/09/89	Klevan et al.			
	*A33	4,935,363	06/19/90	Brown et al.			
	*A34	4,959,309	9/25/90	Dattagupta et al.			
	*A35	5,070,010	12/03/91	Hsu			
	*A36	5,338,671	8/16/94	Scalice et al.			
	*A37	5,459,015	10/17/95	Janjic et al.			
	*A38	5,476,766	12/19/95	Gold et al.			
	*A39	5,496,938	03/05/96	Gold et al.			
	*A40	5,503,978	4/12/96	Schneider et al.			
	*A41	5,543,293	08/06/96	Gold et al.			
	*A42	5,635,615	06/03/97	Allen et al.			
	*A43	5,654,151	08/05/97	Allen et al.			
	*A44	5,723,323	03/03/98	Kauffman et al.			
	*A45	5,763,173	06/09/98	Gold et al.			
	*A46	5,789,157	08/04/98	Jensen et al.			
	*A47	5,849,546	12/15/98	Sousa et al.			
	*A48	5,861,254	1/19/99	Schneider et al.			
	*A49	6,013,443	01/11/00	Heilig et al.			
	*A50	6,020,130	02/01/00	Gold et al.			
	*A51	6,184,364	02/06/01	Pieken et al.			
	*A52	6,476,205	11/05/02	Buhr et al.			
	*A53	6,528,640	03/04/03	Beigelman et al.			
	*A54	6,649,751	11/18/03	Usman et al.			
U.S. PUBLISHED APPLICATION DOCUMENTS							
Exam Initials	Cite No.	U.S. Published Application No.	Published Date	Name of Patentee(s) or Applicant(s)	Class	Sub Class	Filing Date If Appropriate

U.S. PATENT DOCUMENTS							
Exam Initials	Cite No.	U.S. Patent Document No.	Issue Date	Name of Patentee(s) or Applicant(s)	Class	Sub Class	Filing Date If Appropriate

FOREIGN PATENT DOCUMENTS							
Exam Initials	Cite No.	Foreign Patent Document Office	Patent Document Number	Name of Patentee(s) or Applicant(s)	Date of Publication	Translation Yes	No
	B10	AU	AU-B-4758690	Hornes et al.	06/26/90		
	B11	EP	0592035	Scalice, E. et al.	01/03/96		
	B12	UK	2 183 661 A	Ballivet, M. et al.	06/10/87		
	B13	PCT	WO89/06694	Kauffman, S.A. et al.	07/27/89		
	B14	PCT	WO91/14436	Ecker, D.J. et al.	10/03/91		
	B15	PCT	WO 91/19813	Gold, L. et al.	12/26/91		
	B16	PCT	WO92/05285	Weintraub, H.M. et al.	04/02/92		
	B17	PCT	WO92/14842	Toole, J. et al.	09/03/92		
	B18	PCT	W092/14843	Toole, J. et al.	09/03/92		
	B19	PCT	WO 94/08050	Gold et al.	04/14/94		

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS		
Exam Initials	Cite No.	Name of Author, Title (when appropriate), Publication, Volume, Page(s), Date, Etc.
	C55	Andrake (1988) Proc. Natl. Acad. Sci. USA 85:7942
	C56	Briebe et al., (2000) Biochemistry 39:919-923
	C57	Briebe et al., (2002) Biochemistry 41: 5144-5149
	C58	Carey et al. (1983) Biochem. 22(11 ):2601
	C59	Chen et al. (1994) Biochem. 33:8746-8756
	C60	Cohen et al. (1969) Proc. Natl. Acad. Sci. USA 63:458
	C61	Davis et al. (1996) Methods in Enzymology Vol. 267:18
	C62	Debouck et al., (1996) Biology and Physiology of the Blood Brain Barrier, Couraud and Scherman eds., Chapter 23, pp. 143-146
	C63	Ellington & Szostak (1990) Abstracts of papers presented at the 1990 meeting on RNA Processing, Cold Spring Harbor Laboratory, Cold Spring Harbor, NY, Pg. 84
	C64	Fitzwater et al., (1996) Methods in Enzymology vol. 267:275-301
	C65	Gath et al., (1996) Biology and Physiology of the Blood Brain Barrier, Couraud and Scherman eds., Chapter 23, pp. 153-158
	C66	Green et al., (1995) Chemistry & Biology 2:683-695
	C67	Joyce & Inoue (1989) Nucleic Acids Research 17:711
	C68	Joyce (1989) "RNA: Catalysis, Splicing, Evolution". Marlene Belfort & David Shub, editors, Elsevier, Amsterdam
	C69	Kacian et al. (1972) Proc. Natl. Acad. Sci. USA 69:3038
	C70	Kadonaga et al. (1986) Proc. Natl. Acad. Sci. USA 83:5889
	C71	Kellogg et al., (1994) BioTechniques 16:1134
	C72	Kinzler & Vogelstein (1989) Nucleic Acids Research 17:3645
	C73	Kinzler et al. (1990) Mol. Cell. Biol. 10:634

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS		
Exam Initials	Cite No.	Name of Author, Title (when appropriate), Publication, Volume, Page(s), Date, Etc.
	C74	Kramer et al. (1974) J. Mol. Biol. 89:719
	C75	Lestienne et al. (1983) Biochimie. 65:49
	C76	Levisohn & Spiegelman (1968) PNAS USA 60:866
	C77	Levisohn & Spiegelman (1969) PNAS USA 63:805
	C78	Ma and Ptashne (1987) Cell 51: 113
	C79	Maniatis (1982) Molecular Cloning: a Laboratory Manual, Cold Spring Harbor, NY pg.118
	C80	Maniatis et al. (1987) Science 236: 1237
	C81	Miele et al. (1983) J. Mol. Biol. 171:281
	C82	Milligan et al. (1993) J. Medicinal Chemistry 36:1923-1937
	C83	Mills et al. (1967) Proc. Natl. Acad. Sci., USA 58:217
	C84	Mills et al (1973) Science 180:916
	C85	Min et al (1988) Nucleic Acids Res. 16:5075
	C86	Muesing et al. (1985) Nature 313:450
	C87	Oliphant & Struhl (1987) Methods in Enzymology 155:568
	C88	Oliphant & Struhl (1988) Nucleic Acids Research, 16:7673
	C89	Oliphant et al. (1986) Gene 44:177
	C90	Oliphant et al. (1989) Mol. Cell. Biol. 9:2944
	C91	Orgel (1979) Proc. R. Soc. Lon. B205:435
	C92	Ou et al. (1988) Science 239:295
	C93	Padilla et al., (1999) Nucleic Acids Research 27(6): 1561-1563
	C94	Richardson et al., Biochemical Pharmacology (2000) 59:1045-1052
	C95	Robertson & Joyce (1990) Nature 344:467
	C96	Romaniuk et al. (1987) Biochem. 26(6):1563
	C97	Saffhill et al. (1970) J. Mol. Biol. 51 :531
	C98	Sambrook et al. (1989) Molecular Cloning: A Laboratory Manual, Cold Spring Harbor, NY, Section 8.9-8.10
	C99	Singleton et al., Dictionary of Microbiol. & Molec. Biol., Wiley & Sons, New York, NY, 2nd ed. p. 493
	C100	Smith, D. "Magnesium as the Catalytic Center of RNA Enzymes." <u>The Biological Chemistry of Magnesium</u> , Chapter 5, pp. 111-135.
	C101	Szostak, A Structure and Activity of Ribozymes, Redesigning the Molecules of Life, (SA Benner ed.) Springer-Verlag Berlin Heidelberg, pp. 87-113 (1988)
	C102	Tanchou et al. (1994) Aids Research and Human Retroviruses 10:983
	C103	Thiesen & Bach (1990) Nucleic Acids Research 18:3203
	C104	Tuerk et al., (1990) Science 249:501-510
	C105	Tuerk et al., (1992) Proc. Natl. Acad. Sci. 89:6988-6992
	C106	Uhlenbeck et al. (1983) J. Biomolecular Structure and Dynamics 1 :539
	C107	Watson et al (1987) Molecular Biology of the Gene. Benjamin/Cummings Publishing Co., Inc. California, pp. 267,295,323,361,394,396,397 and 405

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS		
Exam Initials	Cite No.	Name of Author, Title (when appropriate), Publication, Volume, Page(s), Date, Etc.
	C108	Yin et al., (2002) Science 298:1387-1395

**\* By the waiver of 37 CFR 1.98(a)(2)(i) copies of the U.S. Patents A30-54 are not submitted.**

Examiner Signature		Date Considered	
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EXAMINER: Initial if reference considered whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.